

In the Specification:

Please replace paragraphs 18, 22, 40 and 42 with the following replacement paragraphs. Trademarks appearing in each paragraph are capitalized and accompanied by generic terminology in response to the Examiner's objection. No new matter is added.

[0018] An aspect of the invention is to provide a cuffless, wrist-worn blood-pressure monitor that features a form factor similar to a common watch. The monitor typically includes two parts: a watch component that measures blood pressure, and a separate wireless hub that sends this and other information to an Internet-accessible website for viewing and analysis. The watch component features individual sensors that measure optical and pressure waveforms, and a microcontroller that analyzes these waveforms to determine beat-to-beat blood pressure without using a constrictive cuff. A short-range wireless transmitter (using, e.g., a Bluetooth™ BLUETOOTH® peer-to-peer protocol) within the watch component sends this information to a matched receiver in the wireless hub. Additionally the hub includes a long-range wireless transmitter (e.g., a radio modem) that sends the blood-pressure information through a wireless network to an Internet-based website.

[0022] The blood-pressure monitoring device typically includes a short-range wireless transmitter operating on a wireless protocol based on Bluetooth™ BLUETOOTH® peer-to-peer, part-15, or 802.11. In this case, 'part-15' refers to a conventional low-power, spread-spectrum, short-range wireless protocol, such as that used in cordless telephones. In typical embodiments, the short-range wireless transmitter sends information to an external, secondary wireless component that includes a short-range wireless receiver (also operating a Bluetooth™ BLUETOOTH®, part-15, or 802.11 wireless peer-to-peer protocol) and a long-range wireless transmitter. The long-range wireless transmitter transmits information over a terrestrial, satellite, or 802.11-based wireless network. Suitable networks include those operating at least one of the following network protocols: CDMA, GSM®, GPRS, ~~Mobitex~~ MOBITEX®, ~~DataTac~~ DATATAC®, ~~iDEN~~ IDEN®, and analogs and derivatives thereof.

[0040] In order to transmit information to the wireless hub, the wrist-mounted module includes a wireless, short-range wireless transmitter 38 (e.g., a Bluetooth™ BLUETOOTH® transmitter) that receives information from the data-processing circuit 32 and transmits this information in the form of a packet through an antenna 39. A matched antenna 49 coupled to a wireless, short-range receiver 50 (e.g., a Bluetooth™ BLUETOOTH® receiver) in the wireless hub receives the packet and passes it to a microprocessor 45. The microprocessor 45 formats the information in a packet suitable for transmission through the wireless network, and then sends the packets to a long-range wireless modem 41 (e.g., a modem operating on the ~~Mobitex~~ MOBITEX® or ~~DataTac~~ DATATAC® networks). Using an antenna 43, the long-range wireless modem 41 transmits the packet through the wireless network to an Internet-accessible website.

[0042] Data are typically transmitted through the wireless network 54 as packets that feature a 'header' and a 'payload'. The header includes an address of the source wireless transmitter and a destination address on the network. The payload includes the above-described data. Data packets are transmitted over conventional wireless terrestrial network, such as a CDMA, GSM®/GPSRS, ~~Mobitex~~ MOBITEX®, or ~~DataTac~~ DATATAC® network. Or they may be transmitted over a satellite network, such as the Orbcomm network. The specific network is associated with the wireless transmitter used by the monitor to transmit the data packet.